

UNITED STATES DEPARTMENT OF COMMERCE **Patent and Trademark Office**

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ATTORNEY DOCKET NO. FIRST NAMED INVENTOR APPLICATION NO. **FILING DATE** 09/318,159 05/25/99 RHODES 07653/020002 **EXAMINER** MM12/0214 FISH & RICHARDSON PC MUNSON. G 45 ROCKEFELLER PLAZA **ART UNIT** PAPER NUMBER NEW YORK NY 10111 2811 DATE MAILED: 02/14/00

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary	Application No.	Applicant(s)	RHODES	
	Application No. 3/8/159 Examiner G. Mus	ISON	Group Art Unit	
—The MAILING DATE of this communication appears	on the cover sheet be	eneath the co	rrespondence add	ress
Period for Reply				
A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO OF THIS COMMUNICATION.	EXPIRE THRE	KMONTH(S)	FROM THE MAILIN	IG DATE
 Extensions of time may be available under the provisions of 37 CFR 1.15 from the mailing date of this communication. If the period for reply specified above is less than thirty (30) days, a reply If NO period for reply is specified above, such period shall, by default, ex Failure to reply within the set or extended period for reply will, by statute 	y within the statutory minima opire SIX (6) MONTHS from	um of thirty (30) on the mailing date	days will be considered of this communication	timely.
Status				
Responsive to communication(s) filed on 8 Nov	EMBER 199	9		
☐ This action is FINAL.				
☐ Since this application is in condition for allowance except for accordance with the practice under Ex parte Quayle, 1935			the merits is close	d in
Disposition of Claims				
		is/are p	ending in the applic	ation.
✓ Claim(s) $\frac{43-67}{47,48,61-67}$ Of the above claim(s) $\frac{47,48,61-67}{43-46,49-60}$ ✓ Claim(s) $\frac{43-46,49-60}{49-60}$		is/are w	vithdrawn from cons	deration.
□ Claim(s)		is/are a	llowed.	
✓ Claim(s) 43-46, 49-60		is/are re	eiected.	
☐ Claim(s)				
□ Claim(s)			ject to restriction or	election
Application Papers	,	requirer	nent.	
✓ See the attached Notice of Draftsperson's Patent Drawing F	Review, PTO-948.			
☐ The proposed drawing correction, filed on		☐ disapproved		
☐ The drawing(s) filed on is/are objected	d to by the Examiner.			
☐ The specification is objected to by the Examiner.				
☐ The oath or declaration is objected to by the Examiner.				
Priority under 35 U.S.C. § 119 (a)-(d)				
 □ Acknowledgment is made of a claim for foreign priority unde □ All □ Some* □ None of the CERTIFIED copies of the □ received. 	e priority documents ha	ve been		
 □ received in Application No. (Series Code/Serial Number) □ received in this national stage application from the Intern 			•	
*Certified copies not received:				
Attachment(s)			 :	
☑ Information Disclosure Statement(s), PTO-1449, Paper No(s) 2 🗆 🗆 In	terview Summ	ary PTO-413	
Notice of Reference(s) Cited, PTO-892	•		al Patent Application	PTO-152
➤ Notice of Draftsperson's Patent Drawing Review, PTO-948			ai Faterit Application	
•		IOI		
Office A	action Summary			

U. S. Patent and Trademark Office PTO-326 (Rev. 9-97) Application/Control Number: 09/318,159

Art Unit: 2811

Claims 47, 48 and 61-67 are withdrawn from consideration as being for non-elected species, the election having been made without traverse in the response, paper No. 5, filed 8 November 1999.

Claim 58 is rejected under 35 U.S.C. 112, second paragraph, as being identical to claim 54.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

- (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.
- (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
- (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 43-46 and 49-52 are rejected under 35 U.S.C. 103 as unpatentable over Schuegraf et al and Jeng et al, considered together. The references are cited by applicant. Impurity dopants in a substrate are conventional, as applicant would agree and as shown by Jeng et al (column 3), which would have been obvious to use for substrate 10 of Schuegraf et al. The claims are broad in scope.

Application/Control Number: 09/318,159

Art Unit: 2811

The "ions" read on subportions of substrate 10 under dielectric regions 24. The claimed "ions" do not distinguish over other "ions" in substrate 10.

Claims 43-46 and 49-60 are rejected under 35 U.S.C. 102 as unpatentable as shown by Jeng or Narita. See Figure 12 of Jeng; Figure 1 of Narita. For Jeng, the "first" dielectric regions read on subportions of dielectric layer 7; the "ions" read on subportions of P type substrate 1 under dielectric layer 7. For Narita, the "first" dielectric regions read on subportions of field oxide 14; the "ions" read on subportions of P type substrate 10 under field oxide 14. The claims are broad in scope.

Claims 43-44, 46-55 and 57-60 are rejected under 35 U.S.C. 102 as unpatentable as shown by Kohara et al. See Figure 2c. The "first" dielectric regions read on subportions of oxide layer 2.

Claims 43-45 and 49-52 are rejected under 35 U.S.C. 102 as unpatentable as shown by Kooi et al. See Figures 8, 10.

Claims 43-45 and 49-52 are rejected under 35 U.S.C. 102 as unpatentable as shown by Doo. See Figure 6, column 4.

Claims 43, 44 and 49-52 are rejected under 35 U.S.C. 102 as unpatentable as shown by Mastroianni et al. See Figure 3J.

Claims 43-45 and 49-52 are rejected under 35 U.S.C. 102 as unpatentable as shown by Custode et al. See Figures 1, 13.

Claims 43, 44, 46 and 49-52 are rejected under 35 U.S.C. 102 as unpatentable as shown by Joo et al. See Figure 15 with "ions" region 68.

No claim is allowed.

Page 4

Application/Control Number: 09/318,159

Art Unit: 2811

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02/08/00

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GROUP ART UNIT 281